

SECTION III (REMARKS)

Response to the Objection to the Abstract

In response to the Examiner's objection to the Abstract, Applicant has hereby amended the Abstract in consistency with the Examiner's suggestions in the September 21, 2004 Office Action.

Response to the §112 Rejections of Claims 1-14

In the September 21, 2004 Office Action, the Examiner rejected claims 1-14 under 35 U.S.C. §112, second paragraph, for certain informalities.

In response, Applicant has corrected such informalities, by amending claims 1, 3, 6, 8, and 14 of the present application consistent with the Examiner's suggestions in the Office Action.

Response to the §103 Rejections of Claims 1-14

In the September 21, 2004 Office Action, the Examiner rejected claims 1-14 of the present application under 35 U.S.C. §103(a) for being obvious over **Stabile et al.** U.S. Patent No. 5,854,684 (hereinafter "Stabile") in view of **Tolles** U.S. Patent No. 4,432,642 (hereinafter "Tolles") and further in view of **Salzman et al.** U.S. Patent No. 4,200,802 (hereinafter "Salzman").

In response, Applicant has hereby amended claims 1 and 3-14.

Applicant respectfully traverses the Examiner's claim rejections, for the following reasons.

Claim 1 as amended, from which claims 2-7 and 11-12 of the present application depend, expressly requires:

"A device for fluorescence correlation spectroscopy, comprising a vessel holder in which at least two sample vessels with a focussing reflection-coated bottom are provided, and a common cover for both sample vessels which is at least partly transparent to light, wherein light rays impinging upon a transparent medium located in each sample vessel are reflected and focussed by the focussing reflective-coated bottom of said sample vessel to a focal point within said sample vessel."

Claim 8 as amended, from which claims 9-10 and 13-14 depend, correspondingly requires:

"A method for fluorescence correlation spectroscopy, comprising:

providing a sample vessel having a reflecting and focussing bottom and containing a transparent medium therein;

impinging light rays upon the transparent medium located in the sample vessel,

wherein the impinging light rays are reflected and focussed by the reflecting and focussing bottom of said sample vessel to a focal point within said sample vessel."

The claimed invention of the present application as defined by claims 1-14 clearly requires that light rays impinging upon the transparent medium in the sample vessel be reflected and focused by the bottom of the sample vessel to a focal point within said sample vessel.

The Stabile reference discloses an apparatus having a sample substrate with concave depressions thereon for holding sample liquid (i.e., sample vessels), while the surface of such concave depressions are coated with reflective material for reflecting impinging light, and a substantial part of the reflected light is directed by the concave depressions toward light responsive pixels of an array detector (see Stabile, column 2, lines 46-62).

However, nothing in Stabile teaches or suggests that the reflected light should be focused by such concave depressions toward a focal point within the concave depressions. On the contrary, Stabile teaches that the light emitted or reflected from the detection sites are focused toward an array detector located outside of the sample substrate, i.e., either at the same side of the sample substrate with the light source or on the opposite side thereof (see Stabile, Figures 1A, 1B, 3A, and 4, and column 1, lines 40-58, and column 2, lines 46-49).

Therefore, Stabile expressly teaches away from focusing the reflected light to a focal point within the sample substrate where the concave depressions (i.e., the sample vessels) are located, and it cannot support a prima face case of obviousness against Applicant's claimed invention as defined by claims 1-14 of the present application, which requires reflection and focusing of the impinging light rays to a focal point within the sample vessel by the bottom of such sample vessel.

Tolles discloses only sample vessels with flat bottoms (see Tolles, Figures 3, 5, and 6), which do not in any manner focus light, much less focus light to a focal point within the sample vessel, as expressly required by claims 1-14 of the present application.

Salzman discloses a cell analysis apparatus with a paraboloidal cavity having a focus and light reflecting walls (see Salzman, Figure 1, and column 1, lines 37-40), so that a laser beam 25 can be directed through the focus 20 of such paraboloidal cavity to meet cells at a perpendicular angle (see Salzman, Figure 3, and column 1, lines 40-42, and column 2, lines 32-34), scattered or fluoresced by the cells at such focus 20, and then reflected by the reflective walls of the paraboloidal cavity to form a parallel light beam, which can be collected for analysis (see Salzman, Figures 1 and 2, and column 1, lines 42-44 and column 2, lines 46-52). It is clear that such impinging laser beam 25 is NOT reflected and focused by the paraboloidal cavity disclosed by Salzman. Instead, the impinging laser beam 25 is reflected and parallelized by the paraboloidal cavity of Salzman.

Therefore, Salzman cannot remedy the deficiency of the Stabile and Tolles references.

Applicant's claimed invention as recited by claims 1-14 therefore patentably distinguishes over the cited references Stabile, Tolles, and Salzman, and Applicant respectfully requests the Examiner to reconsider, and upon reconsideration to withdraw, the rejections of claims 1-14 of the present application.


CONCLUSION

Based on the foregoing, pending claims 1-14 are in form and condition for allowance. The Examiner therefore is requested to issue a Notice of Allowance for the present application.

No fee is rendered payable for this Response. Nevertheless, the Office is hereby authorized to charge any official fees deemed necessary for the entry of this Response to Deposit Account No. 08-3284 of Intellectual Property/Technology Law.

If any issues remain, the Examiner hereby is requested to telephone the undersigned attorney at (919)419-9350 to discuss their resolution, so that this application can be promptly passed to issue.

Respectfully submitted,



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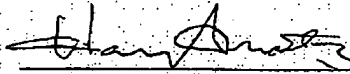
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Expires: August 10, 2005



**Harry L. Moatz
Director of Enrollment and Discipline**